



QC ABSTRACT

NAME OF WORK: Improvements and maintenance of footpath and Drains in ward No.07 Thanisandra

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
Materials						
1	Cement	Fineness by dry sieving	One Test		1	1
		Fineness by Air permeability method	One Test		1	1
		Density	One Test		1	1
		Standard Consistency	One Test		1	1
		Initial Setting time	One Test		1	1
		Final Setting time	One Test		1	1
		Soundness (Le Chatelier's Method)	One Test		1	1
		Compressive Strength	One Test		1	1
2	Coarse aggregate(20 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
		Aggregate crushing Value	One Test		1	1
		Aggregate Impact Value	One Test		1	1
		SIEVE ANALYSIS	One Test		1	1
3	Fine aggregate	Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
		Core Compressive Strength	One Test		1	1
4	Precast (100mm)	Corrected Cylinder Compressive Strength	One Test		1	1
		Equivalent Cube Compressive Strength	One Test		1	1
		Core Compressive Strength	One Test		1	1
5	Precast (230mm)	Corrected Cylinder Compressive Strength	One Test		1	1
		Equivalent Cube Compressive Strength	One Test		1	1

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ದಿ.ಡಿ.ಎಂ.ಪಿ. ಪ್ರಾಜೆಕ್ಟರೇಷನ್ ಮತ್ತು ಉಪ ವಿಭಾಗ

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ಜಿ.ಐ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24

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Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	: CP-2023-07-03-03	Date: 23-02-23
Customer	: Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore	
Address	: Byatarayanapura Sub Division, BBMP, Bangalore	
Project Name	: Improvements and maintenance of footpath and Drains in ward No 07 Thanisandra	
Agency	: Sri. Vishwanath P, #28/2, 2nd Cross, Giddappa Block, Ganganagar, Bengaluru-560032	
Customer's Reference	: BBMP/EE/BTP/WO/120/2022-23	
Source of Sample	: Sample supplied by Agency	
Sample Condition	: Satisfactory	
Date of Receipt	: 20-02-23	
Sample Type	: Birla Super 53grade	
Reference to BIS codes	: IS 269:2015 Ordinary Portland cement Specification , IS 4031 (Part 4,5):1988 IS 4031 Part I (RA 2021) DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, (RA 2018) Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, (RA 2019) Determination of Soundness, Clause 5, Clause 6 IS 4031 Part 4, (RA 2019) Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, (RA 2019) Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11, (RA 2019) DETERMINATION OF DENSITY . Clause 6	

Date of test : 21-02-23

Environmental Conditions during test	;	Temperature	26°C
		Humidity	72%

Sl.No.	Physical properties	Results	Requirement as per IS 269:2015
1	Fineness by dry sieving (%)	2.15	—
2	Finess by Air permeability method (m ² /kg.Min)	282.2	225m ² /kg, Min
3	Density (gm/cc)	3.15	—
4	Standard Consistency (%)	29.0%	Not specified
5	Initial Setting time	185 minutes	Not less than 30 minutes
6	Final Setting time	270 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

* The results obtained are satisfactory as per standard requirements.

Note:

The results pertain to the samples received and tested.

All information furnished by Agency/Representative

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Samples will be disposed after 30 days from the date of issue of test certificate


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 ಪ್ರಾಚಾರ್ಯನವರು ಉಪ ನಿರ್ದೇಶಕರು
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Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID : CP-2023-07-03-03 Date: 21-03-23
Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address : Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name : Improvements and maintenance of footpath and Drains in ward No.07 Thanisandra
Agency : Sri. Vishwanath P, #28/2, 2nd Cross, Giddappa Block, Ganganagar, Bengaluru-560032
Customer's Reference : BBMP/EE/BTP/WO/120/2022-23
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 20-02-23
Sample Type : Birla Super 53grade
Reference to BIS codes : IS 269:2015 Ordinary Portland cement Specification, IS 4031 (Part 4,5):1988
IS 4031 Part 4, (RA 2019) Determination of Consistency of Standard Cement Paste, Clause 5
IS 4031 Part 6, (RA 2019) Determination of Compressive Strength, Clause 6
Date of test : 21-02-23
Environmental Conditions during test : Temperature: 26°C
Humidity: 72%

Compressive Strength			
Sl.No.	Physical properties	Results	Requirement as per IS 269:2015
1	3 Days	29.5N/mm ²	Not less than 27 N/mm ²
2	7 Days	39.0N/mm ²	Not less than 37 N/mm ²
3	28 Days	54.5N/mm ²	Not less than 53 N/mm ²

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Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2023-07-03-03 Date: 22-02-23
Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address : Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name : Improvements and maintenance of footpath and Drains in ward No.07 Thanisandra
Agency : Sri. Vishwanath P, #28/2, 2nd Cross, Giddappa Block, Ganganagar, Bengaluru-560032
Customer Reference : BBMP/EE/BTP/WO/120/2022-23
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 20-02-23
Sample Type/ Size : 20mm down size coarse aggregate
Reference to BIS codes : IS: 383:2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1,3,4) RA2021
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids, Water Absorption
IS 2386 Part 4: Mechanical Properties
Date of test : 20-02-23

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : 5000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	159	159	3.2	96.8	90-100
3	10 mm	2541	2700	54.0	46.0	25-55
4	4.75 mm	2117	4817	96.3	3.7	0-10
5	Pan	183	5000	100	0	-

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TEST REPORT ON COARSE AGGREGATES

Lab ID

: CP-2023-07-03-03

Date: 22-02-23

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	11.6	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	14.8	
3	Specific Gravity	2.62	—
4	Bulk Density(Loose) (Kg/l)	1.50	—
5	Bulk Density(Compacted) (Kg/l)	1.55	—
6	Water Absorption(%)	0.28	—
7	Aggregate crushing Value(%)	26.6	Max 30% for Aggregates to be used in concrete for wearing Surface. In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	24.3	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

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Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID : CP-2023-07-03-03
Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address : Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name : Improvements and maintenance of footpath and Drains in ward No.07 Thanisandra
Agency : Sri. Vishwanath P, #28/2, 2nd Cross, Giddappa Block, Ganganagar, Bengaluru-560032
Customer's Reference : BBMP/EE/BTP/WO/120/2022-23
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 20-02-23
Sample Type : Fine Aggregate
Reference to BIS codes : IS 383 : 2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1, 3) RA2021
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids, Water Absorption
Date of test : 20-02-23

Total weight taken : 1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	35	35	3.5	96.5	90-100	90-100	90-100	95-100
3	2.36 mm	172	207	20.7	79.3	60-95	75-100	85-100	95-100
4	1.18 mm	116	323	32.3	67.7	30-70	55-90	75-100	90-100
5	600 micron	201	524	52.4	47.6	15-34	35-59	60-79	80-100
6	300 micron	217	741	74.1	25.9	5-20	8-30	12-40	15-50
7	150 micron	183	924	92.4	7.6	0-10	0-10	0-10	0-15
8	Pan	76	1000	100.0	0.0	---	---	---	---

Result : The tested Sample Conforms to Grading Zone II

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TEST REPORT OF FINE AGGREGATE

Lab ID

: CP-2023-07-03-03

Date: 22-02-23

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.94	-
2	Specific Gravity	2.55	-
3	Material finer than 75 micron(%)	7.6	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

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Format No: CP/TF/01

TEST REPORT OF PRECAST COVER SLAB

Lab ID : CP-2023-07-03-03 Date: 08-03-23
Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address : Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name : Improvements and maintenance of footpath and Drains in ward No.07 Thanisandra
Agency : Sri. Vishwanath P, #28/2, 2nd Cross, Giddappa Block, Ganganagar, Bengaluru-560032
Customer's Reference : BBMP/EE/BTP/WO/120/2022-23
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 04-03-23
Sample Type /Size : Precast Cover Slab (100mm Thick)
Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete
Date of test : 04/03/2023

Sl. No.	Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
		(mm)	(mm)	(kg)	(Sq.mm)	(KN)	(N/mm ²)	(N/mm ²)	(N/mm ²)
1	Cover Slab-1	77.65	100.48	1.116	4735	100.9	21.3	19.8	24.8
2	Cover Slab-2	77.45	100.52	1.122	4710	104.3	22.1	20.6	25.7
3	Cover Slab-3	77.64	100.51	1.118	4733	101.5	21.4	19.9	24.9

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TEST REPORT OF PRECAST COVER SLAB

Format No: CP/TF/01

Job ID : CP-2023-07-03-03 Date: 08-03-23
Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address : Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name : Improvements and maintenance of footpath and Drains in ward No.07 Thanisandra
Agency : Sri. Vishwanath P, #28/2, 2nd Cross, Giddappa Block, Ganganagar, Bengaluru-560032
Customer's Reference : BBMP/EE/BTP/WO/120/2022-23
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 04-03-23
Sample Type /Size : Precast Cover Slab (230mm Thick)
Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete
Date of test : 04/03/2023

Sl. No.	Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
		(mm)	(mm)	(kg)	(Sq.mm)	(KN)	(N/mm ²)	(N/mm ²)	(N/mm ²)
1	Cover Slab-1	77.51	230.47	2.810	4718	100.5	21.3	19.8	24.8
2	Cover Slab-2	77.49	230.61	2.843	4715	103.1	21.9	20.3	25.4
3	Cover Slab-3	77.50	230.41	2.841	4716	104.1	22.1	20.5	25.7

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ಸಹಾಯಕ ಕಾರ್ಯದರ್ಶಿ ಅಭಿವೃದ್ಧಿ
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